

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICANT: ANDREA MARIA ZAMPONI)
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 SERIAL NO. TO BE ASSIGNED) ART UNIT: TO BE ASSIGNED
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 FILED: HEREWITH) EXAMINER: TO BE ASSIGNED
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 FOR: REACTIVE DYE MIXTURES)
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Asst. Commissioner for Patents
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PRELIMINARY AMENDMENT

Sir:

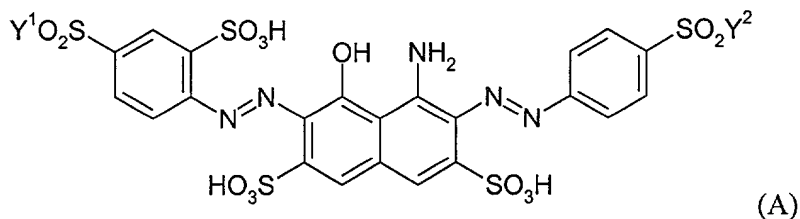
Prior to fee calculation and examination please amend the above-identified
 application as follows.

In the Claims

Please cancel claims 1-88.

Please add the following new claims.

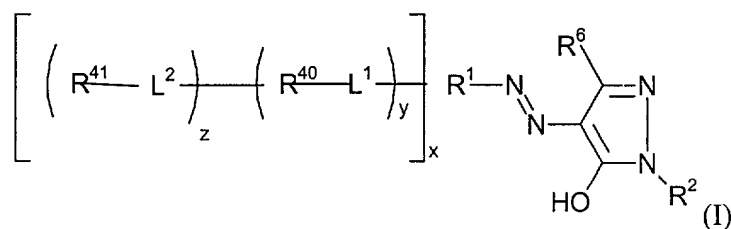
89. A dye mixture comprising, components A and B,
 wherein component (A) is a reactive dye of the formula (A)



wherein each of Y^1 and Y^2 , independently, is a vinyl group or a group of the formula -
 CH_2CH_2Q in which Q is a leaving group removable under alkaline conditions to provide a
 vinyl group; and,

component (B) is at least one reactive dye selected from

(I) a monoazopyrazole dye of the formula



wherein: R^1 is an aryl group selected from phenyl and naphthyl groups optionally having at
 least one substituent thereon, the substituents, or each substituent independently, is a
 sulphonic acid group and a salt thereof, a
 C_{1-4} alkyl group, a C_{1-4} alkoxy group, a hydroxy group, a carboxyl group, a chlorine atom, a
 vinyl sulphonyl group or a group $SO_2CH_2CH_2Q^1$ in which Q^1 is a leaving group removable
 under alkaline conditions to provide a vinyl sulphonyl group;

R^2 is a phenyl or naphthyl group, optionally having at least one substituent thereon,
 the substituent, or each substituent, independently, is a sulphonic acid group and a salt
 thereof, a C_{1-4} alkyl group, a C_{1-4} alkoxy group, a hydroxy group, a chlorine atom, a vinyl
 sulphonyl group, or a group $SO_2CH_2CH_2Q^2$ in which Q^2 is a leaving group removable under
 alkaline conditions to provide a vinyl sulphonyl group, a group Het and a group L^5 -Het,
 wherein Het is an optionally substituted aromatic heterocyclic reactive or non-reactive group
 or a reactive or non-reactive group having an aliphatic chain and L^5 is as defined below; and

R^6 is a methyl group, an amide group or a carboxyl group or a salt thereof;

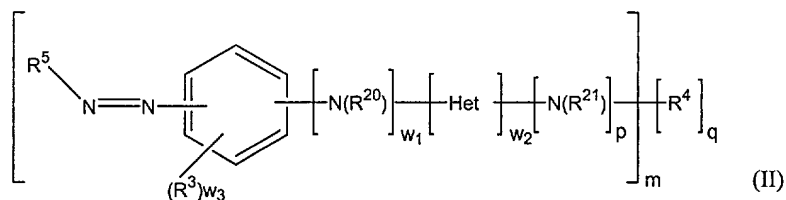
each of R^{40} and R^{41} , independently, is an aryl group selected from phenyl and naphthyl groups, each of which, independently, is optionally substituted by a vinylsulphonyl group or a group $SO_2CH_2CH_2Q^1$ in which Q^1 is a leaving group removable under alkaline conditions to provide a vinylsulphonyl group; or the group Het, wherein Het is as defined above;

at least one of R^1 , R^2 , R^{40} and R^{41} being, or having thereon at least one substituent which is, reactive;

each of L^1 , L^2 and L^5 independently is a linking group selected from $N(R^{20})$, $C(=O)$; $C(=O)-O$; $S(=O)_2$; $S(=O)-NH$; $C(=O)-NH$; and $NHC(=O)NH$; and), wherein R^{20} is hydrogen or C_{1-4} alkyl;

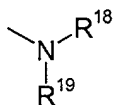
each of x, y and z, independently, is zero or 1; and,
when the group R^1 is substituted by a hydroxy group ortho to the azo group, a metallized derivative thereof;

(II) a monoazo or disazo dye of the formula



wherein: Het is an optionally substituted aromatic heterocyclic reactive or non-reactive group or a reactive or non-reactive group having an aliphatic chain;

R^3 or each R^3 , independently, is a chlorine atom, a methyl group, a methoxy group, a sulphonic acid group or a salt thereof, or is an amino group of the formula



in which each of R^{18} and R^{19} , independently, is hydrogen, chloro, methyl, (C_{1-4} alkyl)carbonyl, aminocarbonyl, vinylsulphonyl or a group $SO_2CH_2CH_2Q^1$, in which Q^1 is as defined above;

R^4 , or each R^4 independently, is hydrogen, a sulphonic acid group or a salt thereof, a C_{1-8} alkyl group, a C_{1-4} alkoxy group, a vinyl sulphonyl group or a group $SO_2CH_2CH_2Q^2$ in which Q^2 is a leaving group removable under alkaline conditions to provide a vinyl sulphonyl group, which C_{1-4} alkyl group or C_{1-4} alkyl moiety of the C_{1-4} alkoxy group is optionally interrupted by an oxygen atom to provide an ether group and is optionally substituted by a vinyl sulphonyl group or a group $SO_2CH_2CH_2Q^2$, in which Q^2 is as defined above; or R^4 or when q is 2, each R^4 independently is a phenyl group optionally substituted by at least one sulphonic acid group or a salt thereof or at least one group Het, wherein Het is as defined above; or R^4 is a group Het, wherein Het is as defined above;

R^5 is an aryl group selected from phenyl and naphthyl groups each optionally substituted by at least one sulphonic acid group or a salt thereof or at least one group Het, as defined above;

R^{20} is a hydrogen atom or a C_{1-4} alkyl group;

R^{21} is a hydrogen atom, a C_{1-4} alkyl group, a sulphonic acid- C_{1-4} alkyl group, a chloroalkylsulphonyl- C_{1-4} alkyl group or a group Het, where Het is as defined above;

m is 1 or 2;

p is zero, 1 or 2;

q is zero, 1 or 2;

each of w_1 and w_2 is zero or 1; and

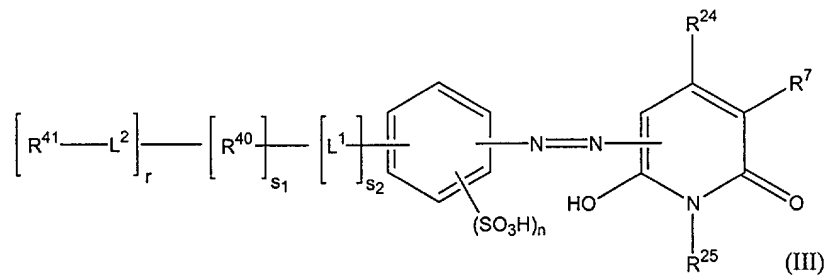
w_3 is 1, 2 or 3; and

when p is zero, q is zero;

at least one of R^4 , R^5 , R^{18} , R^{19} , R^{21} and Het being, or having thereon at least

one substituent which is, reactive;

(III) a monoazopyridone dye of the formula



wherein: each of R^{40} , R^{41} , L^1 and L^2 is as defined above;

R^7 is optionally present and is a cyano group or the group - $\text{CH}_2\text{SO}_3\text{H}$ or the group - $\text{C}(=\text{O})\text{NH}_2$;

each of R^{24} and R^{25} , independently, is a hydrogen atom, a C_{1-4} alkyl group, a sulpho- C_{1-4} alkyl group, or a carboxyl group;

n is 1 or 2;

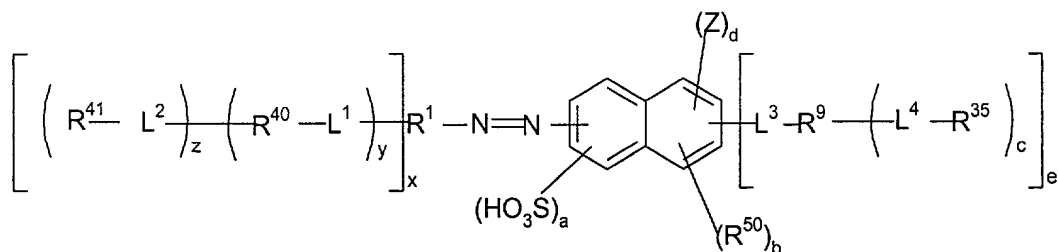
r is zero or 1; and

each of s_1 and s_2 is zero or 1; and when R^{40} is a phenyl or naphthyl group s_2 is

1;

at least one of R^{40} and R^{41} being, or having thereon at least one substituent which is, reactive;

(IV) a monoazonaphthyl dye of the formula



(IV)

wherein: each of R^1 , R^{40} , R^{41} , L^1 , L^2 , x , y and z is as defined above;

R^9 is $CH_3(C=O)-$, Het (as defined above) or an aryl group selected from phenyl and naphthyl, which Het or aryl group is optionally substituted by at least one substituent, the or each substituent, independently, being selected from a sulphonic acid group and a salt thereof, a C_{1-4} alkyl group, a C_{1-4} alkoxy group, a hydroxy group, an amino group optionally substituted by at least one methyl or sulphato group, a vinyl sulphonyl group and a group $SO_2CH_2CH_2Q^1$ in which Q^1 is as defined above;

R^{35} is a C_{1-4} alkyl or C_{2-4} alkenyl group, which C_{1-4} alkyl or C_{2-4} alkenyl group is optionally substituted by at least one halogen atom, a sulphonic acid group or salt thereof, a chloroalkylsulphonyl group, a vinylsulphonyl group or $-SO_2CH_2CH_2Q^1$, where Q^1 is as defined above and which C_{1-4} alkyl or C_{2-4} alkenyl group optionally additionally contains at least one oxygen or sulphur atom in the chain thereof; the group Het is defined above or an aryl group selected from phenyl and naphthyl, which Het or aryl group is optionally

substituted by at least one substituent, the substituent or each substituent independently, being selected from the group consisting of a sulphonic acid group and a salt thereof, a C₁₋₄ alkyl group, a C₁₋₄ alkoxy group, a halogen atom, a hydroxy group, an amino group optionally substituted by at least one methyl or sulphato group, a vinylsulphonyl group, a vinylsulphonyloxyethyl group and a group SO₂CH₂CH₂Q¹ in which Q¹ is as defined above;

R⁵⁰ is a vinylsulphonyl group or a group SO₂CH₂CH₂Q¹ in which Q¹ is as defined above;

at least one of R¹, R⁹, R³⁵, R⁴⁰, R⁴¹ and R⁵⁰ is, or has thereon at least one substituent which is, reactive;

L³ is a linking group which is N(R²⁰); CO; COO; NHCO; NHCONH; SO₂NH or SO₂; and R²⁰ is as defined above;

L⁴ is a linking group which is N(R²¹), in which CO, COO, NHCO, NHCONH, SO₂NH or SO₂; and R²¹ is as defined above;

Z is hydroxy, amino or methylamino;

a is zero or 1-4;

b is zero or 1-3;

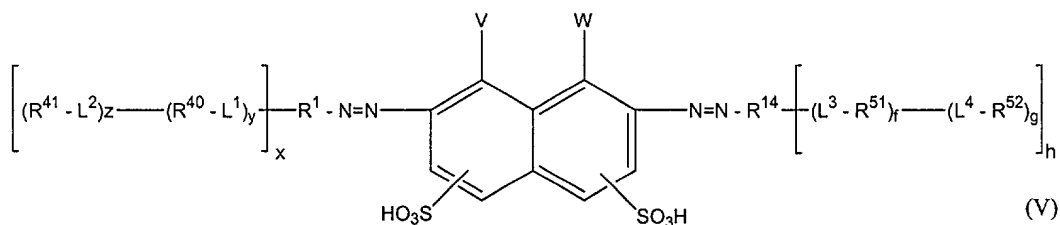
c is zero or 1;

d is zero, 1 or 2;

e is zero or 1; and

when each of R¹ and Z provides a hydroxyl group ortho to the azo group, a metallized derivative thereof;

(V) a disazoaminonaphthyl dye of the formula



wherein: each of R¹, R⁴⁰, R⁴¹, L¹, L², x, y and z is as defined above;

each of V and W, independently, is NH₂ or OH;

R¹⁴ is an aryl group selected from phenyl and naphthyl groups optionally having at least one substituent thereon, the substituents, or each substituent independently, being selected from a sulphonic acid group and a salt thereof, a C₁₋₄ alkyl group, a C₁₋₄ alkoxy group, a hydroxy group, a vinyl sulphonyl group, a group SO₂CH₂CH₂Q¹ in which Q¹ is a leaving group removable under alkaline conditions to provide a vinyl sulphonyl group;

each of R⁵¹ and R⁵² independently is an aryl group selected from phenyl and naphthyl groups each of which is optionally substituted by a vinyl sulphonyl group, a group SO₂CH₂CH₂Q¹ in which Q¹ is a leaving group removable under alkaline conditions to

each of L³ and L⁴, independently, is a linking group selected from the group consisting of N(R²⁰); C₁₋₄ alkyl; C(=O); C(=O)-O; S(=O)₂; S(=O)-NH; C(=O)-NH; and NHC(=O)NH; in which R²⁰ is hydrogen;

at least one of R¹⁴, R⁴⁰, R⁴¹, R⁵¹ and R⁵² is, or has thereon at least one substituent which is, reactive;

$$\begin{array}{c}
 \text{(R}^{15}\text{)}_l \\
 | \\
 \text{C}_6\text{H}_4 - \text{COO} - \text{Cu} - \text{O} - \text{C}_6\text{H}_3(\text{R}^{17})_j \\
 | \quad \quad | \\
 \text{N} = \text{N} \\
 | \\
 \text{C}_6\text{H}_4(\text{X}^1)_v
 \end{array}
 \left[\text{NH} - \text{Het}^1 - (\text{NH} - \text{R}^{60})_k - (\text{NH} - \text{Het}^2)_l - (\text{NH} - \text{R}^{61})_t \right]_u$$

(VI)

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each of Het¹ and Het², independently, is an optionally substituted aromatic heterocyclic reactive or non-reactive group or a reactive or non-reactive group having an aliphatic chain; and

each of R⁶⁰ and R⁶¹, independently, is an aryl group selected from phenyl and naphthyl groups each of which is optionally substituted by a sulphonic acid group or a salt thereof, a vinylsulphonyl group or a group SO₂CH₂CH₂Q¹ in which Q¹ is as defined above;

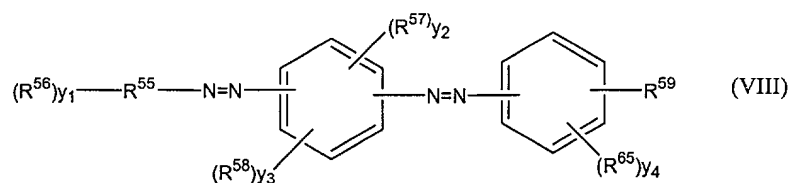
X¹ is a sulphonic acid group or a salt thereof or halogen;

each of i, j and v, independently, is zero, 1 or 2; and

each of k, l, t and u, independently, is zero or 1; and

at least one of R¹⁶, R¹⁷, R⁵⁰, R⁵¹, Het¹ and Het² is, or has thereon at least one substituent which is, reactive;

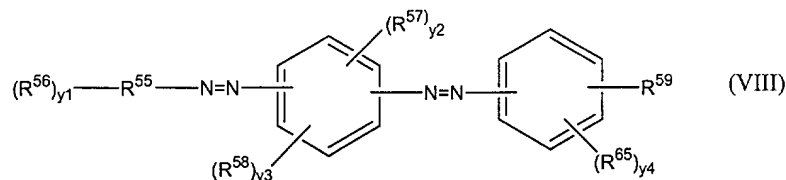
(VII) a dye of the formula



wherein: each of R¹, R², R³, R⁴, R²⁰, R²¹, R⁴⁰, L¹, Het, x, p, q, w₁, w₂ and w₃ is as defined above; and

at least one of R¹, R², R³, R⁴, R²¹, R⁴⁰ and Het is, or has thereon at least one substituent which is, reactive;

(VIII) a disazo dye of the formula



wherein R^{55} is an aryl group selected from phenyl and naphthyl groups;

R^{56} is a sulphonic acid group or a salt thereof or a reactive group selected from a vinyl sulphonyl group and a group $SO_2CH_2CH_2Q^1$ in which Q^1 is a leaving group removable under alkaline conditions to provide a vinyl sulphonyl group;

R^{57} is an amino group or a group NHR^A in which R^A is a C_{1-4} alkyl group;

R^{58} is a sulphonic acid group or a salt thereof;

R^{59} is a sulphonic acid group or a salt thereof, a reactive group selected from a vinyl sulphonyl group and a group $SO_2CH_2CH_2Q^2$ in which Q^2 is a leaving group removable under alkaline conditions to provide a vinyl sulphonyl group; or the group R^{59} is a group Het or a group L^{10} -Het, where Het is an optionally substituted aromatic heterocyclic reactive or non-reactive group;

R^{65} is a ureido group or a group $HNC(=O)R^B$ in which R^B is a C_{1-4} alkyl group;

L^{10} is a linking group selected from $N(R^{20})$, $C(=O)$; $C(=O)-O$; $S(=O)_2$; $S(=O)-NH$; $C(=O)-NH$; and $NHC(=O)NH$ and R^{20} is hydrogen or C_{1-4} alkyl;

y_1 is zero, 1, 2 or 3;

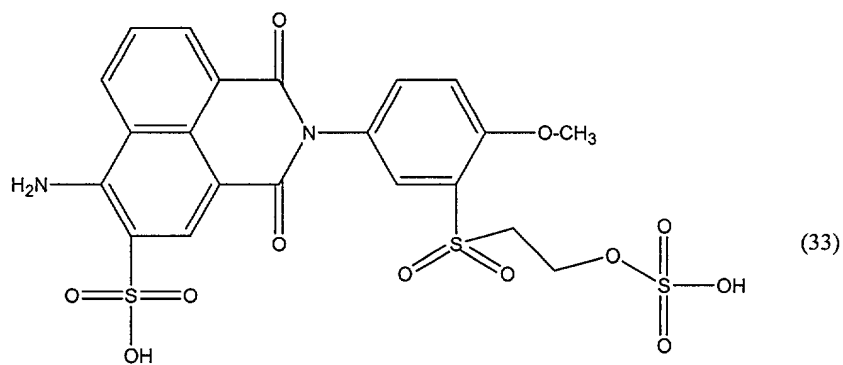
y_2 is zero, 1 or 2;

y_3 is zero or 1; and

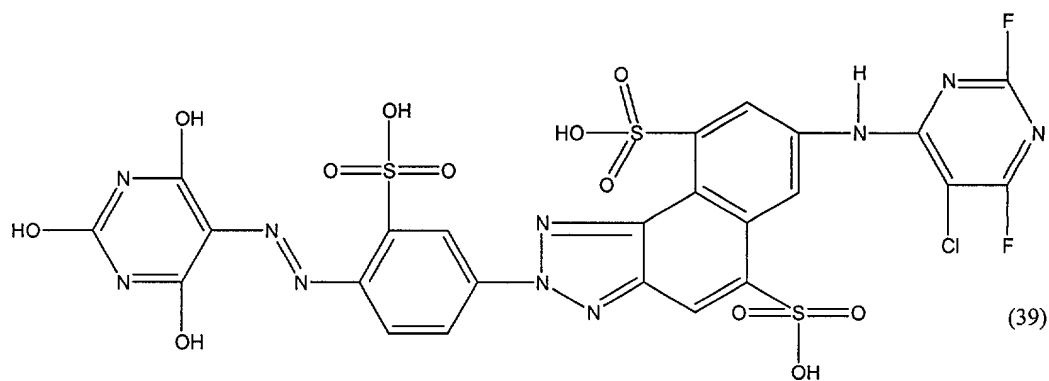
y_4 is zero or 1; and

at least one of R^{56} and R^{59} is a reactive group;

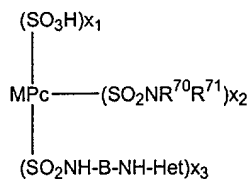
(IX) a dye of the formula



OR

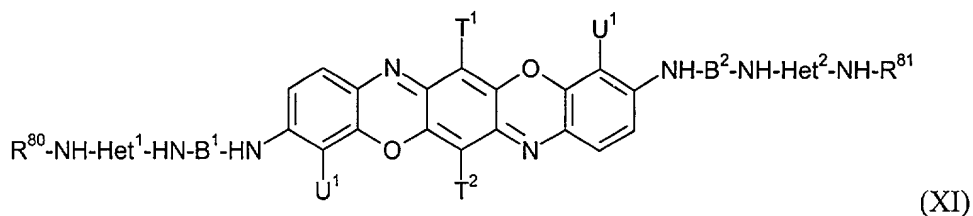


(X) a metal phthalocyanine dye of the formula



wherein: MPc is a metallophthalocyanine chromophore;
 each of R^{70} and R^{71} , independently, is hydrogen or C_{1-4} alkyl;
 B is a hydrocarbon bridging group;
 Het is a reactive heterocyclic group;
 each of x_1 , x_2 and x_3 is a respective average value;
 $x_1 + x_2 + x_3 = 4$;
 x_1 is at least 1
 x_2 is zero or 1; and
 x_3 is at least 1; and

(XI) a triphenodioxazine dye of the formula (XI)(or a salt thereof)



wherein: each of B^1 and B^2 , independently, is a hydrocarbon bridging group;
 U^1 is H or SO_3H ; and
 each of T^1 and T^2 , independently, is halo, C_{1-4} alkyl, or C_{1-4} alkoxy;

each of R^{80} and R^{81} is a phenyl group substituted by at least one sulphonic acid group or a salt thereof;

each of Het^1 and Het^2 is as defined above; and

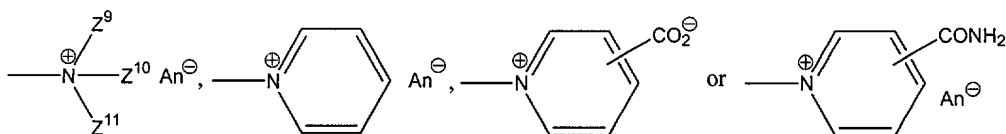
at least one of Het^1 and Het^2 is a reactive group.

90. The dye mixture according to claim 89, wherein, in the dye of the formula (A), at least one of Y^1 and Y^2 is the group

$-CH_2CH_2Q$ and Q is chlorine, bromine,

C_{1-4} -alkylsulfonyl, phenylsulfonyl, OSO_3H , SSO_3H , $OP(O)(OH)_2$,

C_{1-4} -alkylsulfonyloxy, phenylsulfonyloxy, $(C_{1-4}$ alkyl) carbonyloxy, $(C_{1-4}$ dialkyl) amino or a radical of the formula



where Z^9 , Z^{10} and Z^{11} are identical or different and are each, independently of one another,

C_{1-4} alkyl or benzyl and An^θ is in each case one equivalent of an anion.

91. The dye mixture according to claim 90, in which, in the reactive dye of the formula

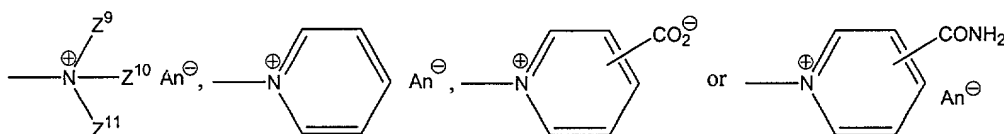
(A), each of Y^1 and Y^2 is the group $HO_3SOCH_2CH_2$.

92. The dye mixture according to claim 89, wherein the reactive dye (B) contains a group Het, where Het is an optionally substituted aromatic heterocyclic reactive group derived from a halogen-substituted heterocyclic compound selected from 1,3,5-triazine, quinoxaline, phthalazine, pyrimidine, pyridazine or 2-(C₁₋₄ alkylsulphonyl) benzothiazole.

93. The dye mixture according to claim 92, wherein the aromatic heterocyclic reactive group is substituted and at least one substituent is a halogen atom.

94. The dye mixture according to claim 92, wherein the reactive dye (B) contains a group Het, wherein Het is a reactive group having an aliphatic chain and is acryloyl, mono-chloroacryloyl, dichloroacryloyl, trichloroacryloyl, mono-bromoacryloyl, di-bromoacryloyl tri-bromoacryloyl, -CO-CCl=CH-COOH, -CO-CH=CCl-COOH, 2-chloropropionyl, 1,2-dichloropropionyl, 1,2-dibromopropionyl, 3-phenylsulfonylpropionyl, 3-methylsulfonylpropionyl, 2-sulfatoethylaminosulfonyl, 2-chloro-2,3,3-trifluorocyclobutylcarbonyl, 2,2,3,3-tetrafluorocyclobutylcarbonyl, 2,2,3,3-tetrafluorocyclobutylsulfonyl, 2-(2,2,3,3-tetrafluorocyclobutyl)acryloyl, 1-alkylsulfonylacryloyl, 2-alkylsulfonylacryloyl, 1-arylsulfonylacryloyl, 2-arylsulfonylacryloyl, or a radical of the formula SO₂-Y³, SO₂NH-Y³, CONH-L⁶-SO₂-Y³ or NHCONH-L⁶-SO₂-Y³ where L⁶ is C₁-C₄-alkylene or phenylene and Y³ is a vinyl group or a group of the formula CH₂CH₂Q³ in which Q³ is a leaving group removable under alkaline conditions to provide a vinyl group.

95. The dye mixture according to claim 89, wherein the reactive dye (B) has at least one of the groups Q^1 and Q^2 therein and the or each of groups Q^1 and Q^2 independently is selected from chlorine, bromine, C_{1-4} -alkylsulfonyl, phenylsulfonyl, OSO_3H , SSO_3H , $OP(O)(OH)_2$, C_{1-4} -alkylsulfonyloxy, phenylsulfonyloxy, $(C_{1-4}$ alkyl)carbonyloxy, $(C_{1-4}$ dialkyl)amino or a radical of the formula



where Z^9 , Z^{10} and Z^{11} are identical or different and are each, independently of one another, C_{1-4} -alkyl or benzyl and An^\ominus is in each case one equivalent of an anion.

96. The dye mixture according to claim 89, wherein the reactive dye (B) is a monoazopyrazole dye of the formula (I).

97. The dye mixture according to claim 96, wherein, in the reactive dye (B) of the formula (I), at least one of the group $[(R^{41}-L^2)_z(R^{40}-L^1)_y]R^1$ and the group R^2 has a group $-SO_2CH_2SO_2Q^2$ substituted thereon.

98. The dye mixture according to claim 96, wherein, in the reactive dye (B) of the formula (I), x is zero and the group R^1 is substituted by at least one of a sulphonic acid group and the group $-SO_2CH_2SO_2Q^1$.

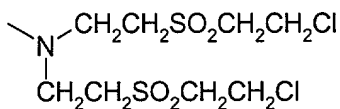
99. The dye mixture according to claim 97, wherein, in the reactive dye (B) of the formula (I), each of x, y and z is 1, each of L¹ and L² is NH, R⁴⁰ is the group Het, where Het is a triazine ring substituted by a halogen atom and R⁴¹ is an optionally substituted phenyl group.

100. The dye mixture according to claim 96, wherein, in the reactive dye (B) of the formula (I), each of x and z is 1, y is zero, L² is NH and R⁴¹ is the group Het, where Het is a difluorochloropyrimidinyl group.

101. The dye mixture according to claim 96, wherein, in the reactive dye (B) of the formula (I), each of x and z is 1, y is zero, L² is CONH in which the nitrogen atom is attached to the group R¹ and the carbon to the group R⁴¹ and R⁴¹ is the group Het, where Het is a 2,3-dichloroquinoxaline group.

102. The dye mixture according to claim 96, wherein, in the reactive dye (B) of the formula (I), R² is a phenyl or naphthyl group substituted by at least one of a sulphonic acid group and the group -SO₂CH₂SO₂Q².

103. The dye mixture according to claim 96, wherein, in the reactive dye (B) of the formula (I), R² is a phenyl or naphthyl group substituted at least by the group NH-Het, wherein Het is a triazine ring substituted by a halogen atom and optionally substituted by the group



104. The dye mixture according to claim 96, wherein, in the reactive dye (B) of the formula (I), the group R¹ is substituted by a hydroxy group ortho to the azo group and the reactive dye (B) is in the form of a copper complex.

105. The dye mixture according to claim 89, wherein the reactive dye (B) is monoazo or disazo dye of the formula (II).

106. The dye mixture according to claim 105, wherein, in the reactive dye (B) of the formula (II), the group R⁵ is an aryl group selected from phenyl and naphthyl groups each substituted by at least one sulphonic acid group or a salt thereof or by a group Het, wherein Het is a vinylsulphonyl group or a group SO₂CH₂CH₂Q¹.

107. The dye mixture according to claim 106, wherein, in the reactive dye (B) of the formula (II), m is 1, which dye is a monoazo dye.

108. The dye mixture according to claim 107, wherein, in the reactive dye (B) of the formula (II), each of w₁, w₂, p and q is zero, w₃ is at least 2, at least one of the groups R³ is a sulphonic acid group and the group R⁵ is an aryl group selected from phenyl and naphthyl groups each substituted by a vinylsulphonyl group or a group -SO₂CH₂CH₂Q¹.

109. The dye mixture according to claim 107, wherein, in the reactive dye (B) of the formula (II), each of w_1 and w_2 is zero, each of p and q is 1, R^{21} is hydrogen and R^4 is

a) a triazine ring substituted by at least one halogen atom, and optionally additionally substituted by an amino group; or

b) a pyrimidine group substituted by at least one halogen atom and optionally additionally substituted by a methyl group.

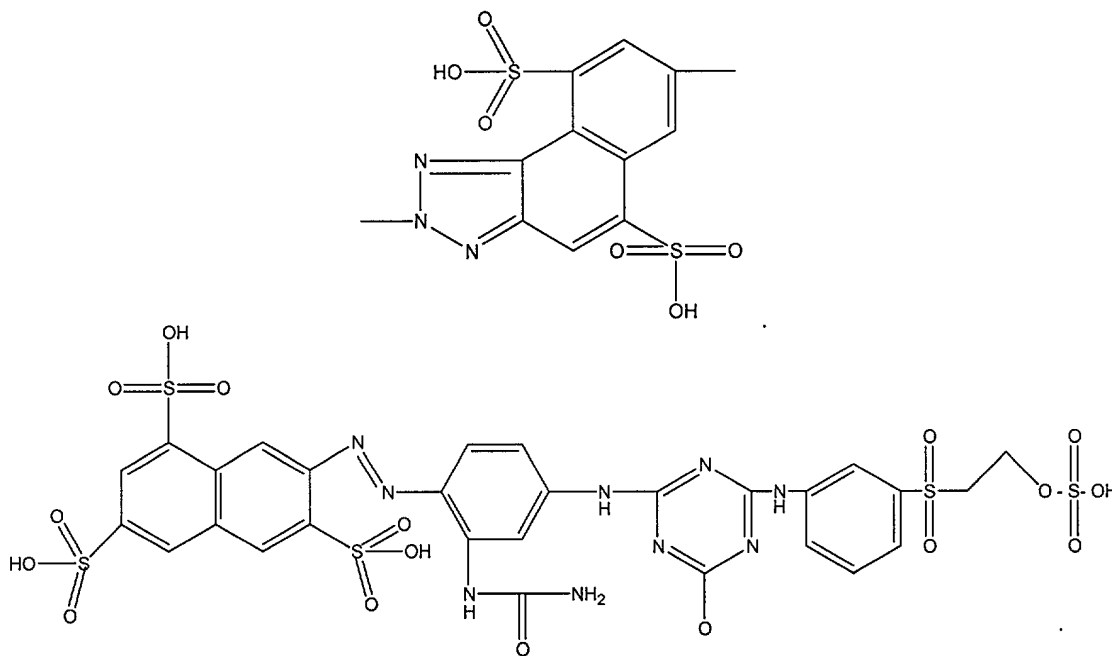
110. The dye mixture according to claim 107, wherein, in the reactive dye (B) of the formula (II), each of w_1 , w_2 , p and q is 1, R^{20} is hydrogen, Het is a triazine ring substituted by a halogen atom, R^{21} is hydrogen and R^4 is a phenyl group, a group $-SO_2CH_2CH_2Q^1$, a straight or branched C_{2-4} alkylene chain substituted by a substituent is a hydroxyl group; a sulphonic acid group or salt thereof; a vinylsulphonyl group, a group

$-SO_2CH_2CH_2Q^2$, or a pyrimidinylamino group in which the pyrimidinyl group is substituted by at least one halogen atom and optionally additionally by a methyl group; and which straight or branched C_{2-4} alkylene group optionally contains a hetero atom selected from the group consisting of O, S and N(H).

111. The dye mixture according to claim 107, wherein, in the reactive dye (B) of the formula (II), each of w_1 and w_2 is zero, each of p and q is 1 and each of R^{21} and R^4 is the group OSO_3H .

112. The dye mixture according to claim 107, wherein, in the reactive dye (B) of the formula (II), w_1 is zero, w_2 is 1, p is 1, q is 1, R^{21} is hydrogen, R^4 is a pyrimidinyl group

substituted by at least one halogen atom and optionally additionally substituted by a methyl group and Het is a non-reactive heterocyclic group of the formula



113. The dye mixture according to claim 107, which contains a dye of the formula (44)

114. The dye mixture according to claim 89, wherein the reactive dye (B) is a monoazopyridone dye of the formula (III).

115. The dye according to claim 114, wherein, in the reactive dye (B) of the formula (III), each of r , s_1 and s_2 is 1, each of L^1 and L^2 is NH, R^{40} is a triazine ring substituted by a halogen atom and R^{41} is a phenyl group substituted by at least one of a chlorine atom, a sulphonic acid group or a salt thereof, a vinylsulphonyl group or a group $-SO_2CH_2CH_2Q^1$ or a

straight or branched chain C₂₋₄ alkylene group optionally containing at least one oxygen atom and substituted by a vinylsulphonyl group or a group -SO₂CH₂CH₂Q¹.

116. A dye mixture according to claim 114, wherein, in the reactive dye (B) of the formula (III), each of r and s₁ is 1, s₂ is zero, L² is NH, R⁴¹ is a pyrimidinyl group substituted by at least one halogen atom and optionally additionally substituted by a methyl group and R⁴⁰ is a naphtho-(1,2-d)-1,2,3-triazole substituted by at least one sulphonic acid group or salt thereof.

117. A dye mixture according to claim 114, wherein, in the reactive dye (B) of the formula (III), each of r₁, s₁ and s₂ is 1, L¹ is CONH, in which the carbon atom is attached to the group R⁴⁰, L² is NH, R⁴⁰ is an optionally substituted phenyl group and R⁴¹ is a pyrimidinyl group substituted by at least one halogen atom and optionally additionally substituted by a methyl group.

118. The dye mixture according to claim 89, wherein the reactive dye (B) is a monoazonaphthyl dye of the formula (IV).

119. The dye mixture according to claim 118, wherein, in the reactive dye (B) of the formula (IV), x is zero, d is 1 and a or b is 1.

120. The dye mixture according to claim 119, wherein e is zero.

121. The dye mixture according to claim 118, wherein, in the reactive dye (B) of the formula, x is 1, y is zero, z is 1, L^2 is NH and R^{41} is a pyrimidinyl group substituted by at least one halogen atom and optionally additionally substituted by a methyl group.

122. The dye mixture according to claim 118, wherein, in the reactive dye (B) of the formula (IV), x is 1, y is zero, z is 1, L^2 is CONH and with the carbon atom attached to the group R^1 and the nitrogen atom to the group R^{41} and R^{41} is a phenyl group substituted by a vinylsulphonyl group or a group $-SO_2CH_2CH_2Q^1$.

123. The dye mixture according to claim 118, wherein, in the reactive dye (B) of the formula (IV) each of x, y and z is 1, each of L^1 and L^2 is NH, R^{40} is a triazine ring substituted by a halogen atom and R^{41} is an aromatic group selected from phenyl and naphthyl groups each substituted by at least one of a sulphonic acid group or a salt thereof, a vinylsulphonyl group or the group $-SO_2CH_2CH_2Q^1$.

124. The dye mixture according to claim 121, wherein e is zero.

125. The dye mixture according to claim 118, wherein, in the reactive dye (B) of the formula (IV), e is 1, c is zero, L^3 is CONH and wherein either the nitrogen or carbon atom thereof is attached to the group R^9 and R^9 is a methyl group.

126. The dye mixture according to claim 118, wherein, in the reactive dye (B) of the formula (IV), e is 1, c is zero, L^3 is CONH and wherein either the nitrogen or carbon atom thereof is attached to the group R^9 and R^9 is a phenyl group optionally substituted by at least one substituent, the or each substituent is methoxy, carboxyethyl, sulphoethyl, carboxyethenyl, 1,2-dibromoalkyl, chloroethylsulphonyl, vinylsulphonyl, a group of the formula $-SO_2CH_2CH_2Q^1$, or a 2,3-dichloroquinoxaline group.

127. The dye mixture according to claim 118, wherein, in the reactive dye (B) of the formula (IV), e is 1, c is 1, L^3 is CONH and wherein either the nitrogen or carbon atom thereof is attached to the group R^9 , R^9 is a phenyl group substituted at least by the group L^4-R^{35} , wherein L^4 is NH and R^{35} is a vinyl group optionally substituted by a halogen atom or a pyrimidinyl group substituted by a halogen atom and optionally additionally substituted by a methyl group.

128. The dye mixture according to claim 118, wherein, in the reactive dye (B) of the formula (IV), e is 1, c is zero, L^3 is $N(R^{20})$, wherein R^{20} is as defined in claim 1 and R^9 is a vinylsulphonyl group, a group $-SO_2CH_2CH_2Q^1$, or a pyrimidinyl group substituted by a halogen atom and optionally additionally substituted by a methyl group.

129. The dye mixture according to claim 128, wherein, in the group $N(R^{20})$, and R^{20} is a halogen atom or a methyl group.

130. The dye mixture according to claim 118, wherein, in the reactive dye (B) of the formula (IV), e is 1, c is zero, L^3 is $N(R^{20})$, and R^9 is a triazine ring substituted by at least one halogen atom.

131. The dye mixture according to claim 130, wherein the triazine ring is substituted by two halogen atoms.

132. The dye mixture according to claim 130, wherein the triazine ring is substituted by one halogen atom and a morpholinyl group.

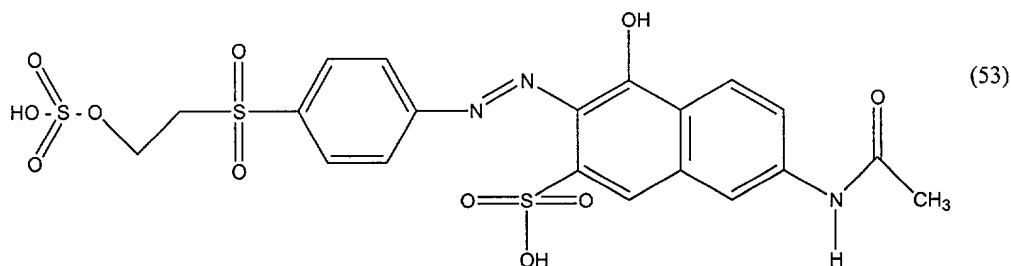
133. The dye mixture according to claim 118, wherein, in the reactive dye (B) of the formula (IV), e is 1, c is 1, L^3 is $N(R^{20})$, L^4 is the group R^{21} , and R^{35} is a phenyl group optionally substituted by a sulphonic acid group or salt thereof, a halogen atom, a vinylsulphonyloxyalkyl group, a vinylsulphonyl group or the group $-SO_2CH_2CH_2Q^1$, a C_{1-4} alkyl group optionally substituted by a vinylsulphonyl group, the group $-SO_2CH_2CH_2Q^1$, a sulphonic acid group or a salt thereof or a chloroalkylsulphonyl group, which C_{1-4} alkyl group optionally additionally contains at least one oxygen or sulphur atom in the chain thereof.

134. The dye mixture according to claim 125, wherein x is zero.

135. The dye mixture according to claim 125, wherein, in the reactive dye (B) of the formula (IV), each of the groups R^1 and the naphthalene nucleus is substituted by a respective

hydroxyl group ortho to the azo group and the reactive dye (B) is in the form of a copper complex thereof.

136. The dye mixture according to claim 118, which contains a dye of the formula (53)



137. The dye mixture according to claim 89, wherein the reactive dye (B) is a disazo dye of the formula (V).

138. The dye mixture according to claim 137, wherein, in the reactive dye (B) of the formula (V), V is amino, W is hydroxy, each of R^1 and R^{14} is a phenyl group substituted by at least one substituent, the or each substituent independently being a sulphonic acid group or a salt thereof, a vinylsulphonyl group or a group $SO_2CH_2CH_2Q^1$ and R^{14} is optionally additionally substituted by at least one methoxy group.

139. The dye mixture according to claim 137, wherein, in the reactive dye (B) of the formula (V), each of x and h is zero.

140. The dye mixture according to claim 138, wherein, in the reactive dye (B) of the formula (V), at least one of x and h is 1.

141. The dye mixture according to claim 140, wherein, each of x and h is 1.

142. The dye mixture according to claim 138, wherein each of x, y and z is 1, each of L^1 and L^2 is NH, R^{40} is a triazine ring substituted by a halogen atom and R^{41} is a phenyl group substituted by at least one substituent, the or each substituent independently being a sulphonic acid group or a salt thereof, a vinylsulphonyl group or a group $SO_2CH_2CH_2Q^1$.

143. The dye mixture according to claim 142, wherein each of f, g and h is 1, each of L^3 and L^4 is NH, R^{51} is a triazine ring substituted by a halogen atom and R^{52} is a phenyl group substituted by at least one substituent the or each substituent independently being selected from a halogen atom, a sulphonic acid group or a salt thereof, a vinylsulphonyl group and a group $SO_2CH_2CH_2Q^1$.

144. The dye mixture according to claim 137, wherein, in the reactive dye (B) of the formula (V), V is amino, W is hydroxy, h is zero and R^{14} is a naphthalene group substituted by at least one sulphonic acid group.

145. The dye mixture according to claim 144, wherein each of x, y and z is 1, R^1 is a phenyl group optionally substituted by a sulphonic acid group or a salt thereof, each of L^1 and L^2 is NH, R^{40} is a triazine ring substituted by a halogen atom and R^{41} is a phenyl group

substituted by at least one substituent, the or each substituent independently being a sulphonic acid group or a salt thereof, a vinylsulphonyl group or a group $\text{SO}_2\text{CH}_2\text{CH}_2\text{Q}^1$.

146. The dye mixture according to claim 137, wherein, in the reactive dye (B) of the formula (V), V is amino, W is hydroxy, h is 1, f is zero, g is 1, L^4 is NH and R^{52} is the group Het^3 , where Het^3 is a substituted aromatic heterocyclic group.

147. The dye mixture according to claim 146, wherein the group Het^3 is a pyrimidinyl group substituted by at least one halogen atom and optionally additionally substituted by a methyl group.

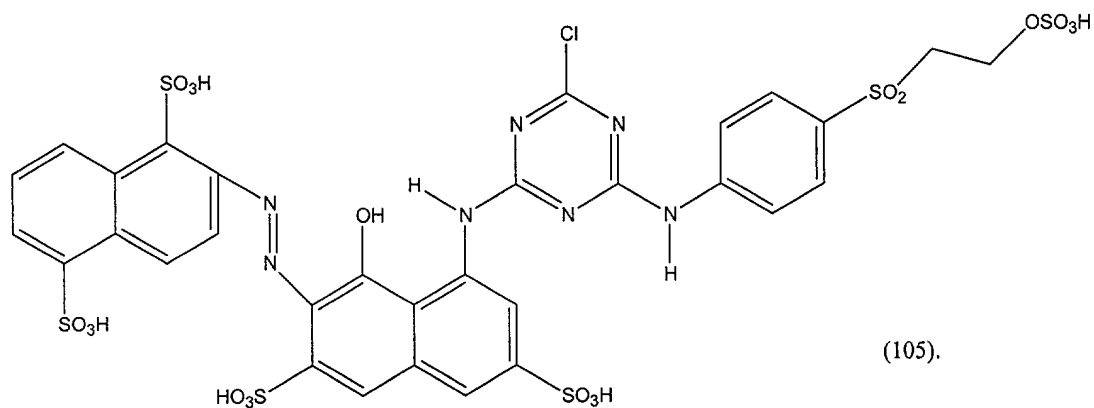
148. The dye mixture according to claim 147, wherein x is zero and R^1 is a phenyl group substituted by a vinylsulphonyl group or $\text{SO}_2\text{CH}_2\text{CH}_2\text{Q}^1$.

149. The dye mixture according to claim 137, wherein, in the reactive dye (B) of the formula (V), V is amino, W is hydroxy, h is 1, f is zero, g is 1, L^4 is NHCO, wherein either the nitrogen or carbon atom thereof is attached to the group R^{14} , and R^{52} is the group Het^3 , where Het^3 is a reactive group having an aliphatic chain.

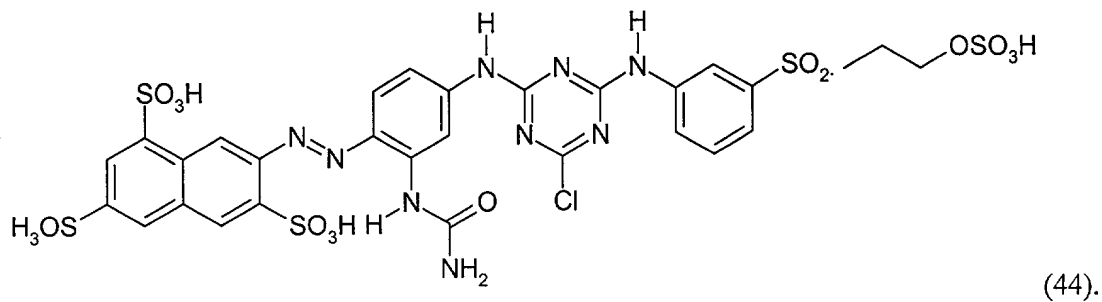
150. The dye mixture according to claim 149, wherein the group Het^3 is a vinylsulphonyl group or $\text{SO}_2\text{CH}_2\text{CH}_2\text{Q}^1$.

151. The dye mixture according to claim 150, wherein x is zero and R^1 is a phenyl group substituted by a vinylsulphonyl group or $\text{SO}_2\text{CH}_2\text{CH}_2\text{Q}^1$.

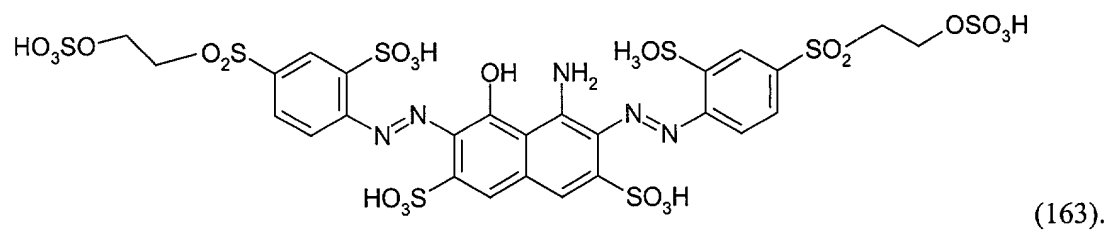
152. The dye mixture according to claim 137, which contains a dye of the formula (105)



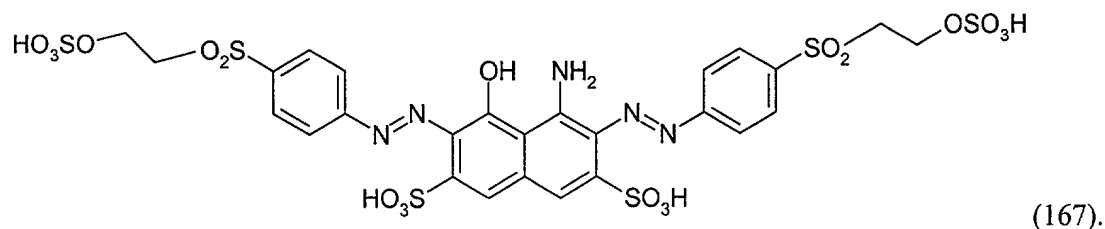
153. The dye mixture according to claim 152, which additionally contains a dye of the formula (44)



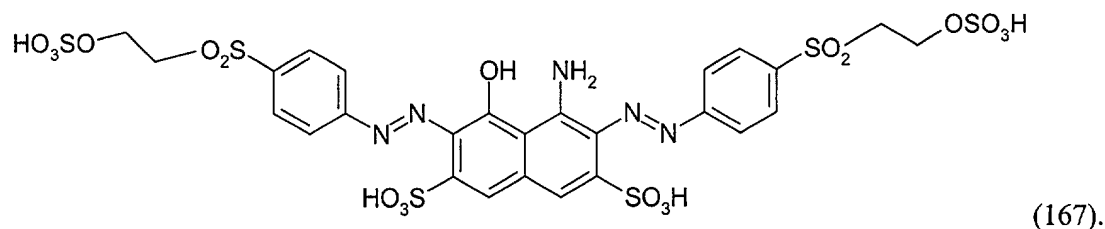
154. The dye mixture according to claim 137, which contains a dye of the formula (163)



155. The dye mixture according to claim 137, which contains a dye of the formula (167)



156. The dye mixture according to claim 154, which contains each of the dyes of the formulae (163) and (167).



157. The dye mixture according to claim 89, wherein the reactive dye (B) is a formazan dye of the formula (VI).

158. The dye mixture according to claim 157, wherein, in the reactive dye (B) of the formula (VI), each of u and v is zero, i is 1, R¹⁶ is a sulphonic acid group or a salt thereof, j is 2 and one R¹⁷ is a sulphonic acid group or a salt thereof and the other R¹⁷ is a vinylsulphonyl group or SO₂CH₂CH₂Q¹.

159. The dye mixture according to claim 157, wherein, in the reactive dye (B) of the formula (VI), v is zero, i is 1, R¹⁶ is a sulphonic acid group or a salt thereof, j is 1, R¹⁷ is a sulphonic acid group, u is 1 and Het¹ is a triazine ring substituted by a halogen atom.

160. The dye mixture according to claim 159, wherein each of k and l is zero, t is 1 and R⁶¹ is a phenyl group substituted by at least one sulphonic acid group or a salt thereof.

161. The dye mixture according to claim 159, wherein each of k, l and t is 1, each of R⁶⁰ and R⁶¹ independently is a phenyl group substituted by at least one sulphonic acid group or a salt thereof and Het² is a triazine ring substituted by a halogen atom.

162. The dye mixture according to claim 159, wherein each of k and t is zero, l is 1 and Het² is a reactive group having an aliphatic chain.

163. The dye mixture according to 89,
wherein the reactive dye (B) is a disazo dye of the formula (VIII).

164. The dye mixture according to claim 163, wherein

R⁵⁵ is a naphthyl group;

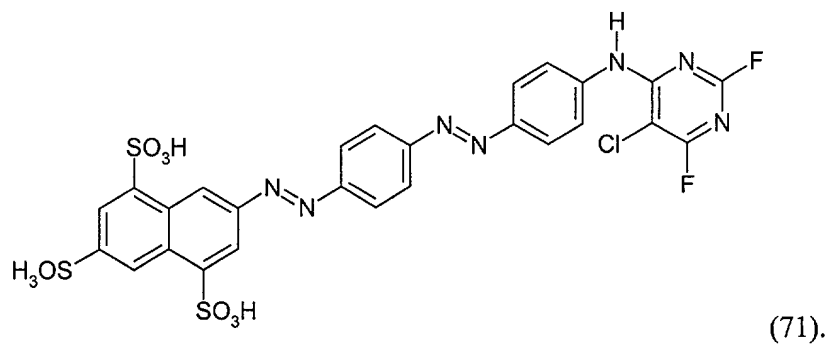
R⁵⁶ is a sulphonic acid group or a salt thereof;

R⁵⁹ is a group L¹⁰-Het, wherein L¹⁰ is the group N(H)- and Het is a reactive heterocyclic group substituted by at least one halogen atom;

y₁ is 1, 2 or 3; and

each of y_2 , y_3 and y_4 is zero.

165. A dye mixture according to claim 76, which contains a dye of the formula (71)



166. The dye mixture according to claim 163, wherein

R^{55} is a phenyl group;

the group R^{56} or each group R^{56} independently is a sulphonic acid group or a salt thereof or is a reactive group selected from a vinyl sulphonyl group and a group $SO_2CH_2CH_2Q^2$;

y_1 is 1 or 2; and

at least one group R^{56} is a said reactive group or the group R^{59} is or includes a reactive group.

167. The dye mixture according to claim 166, wherein at least one

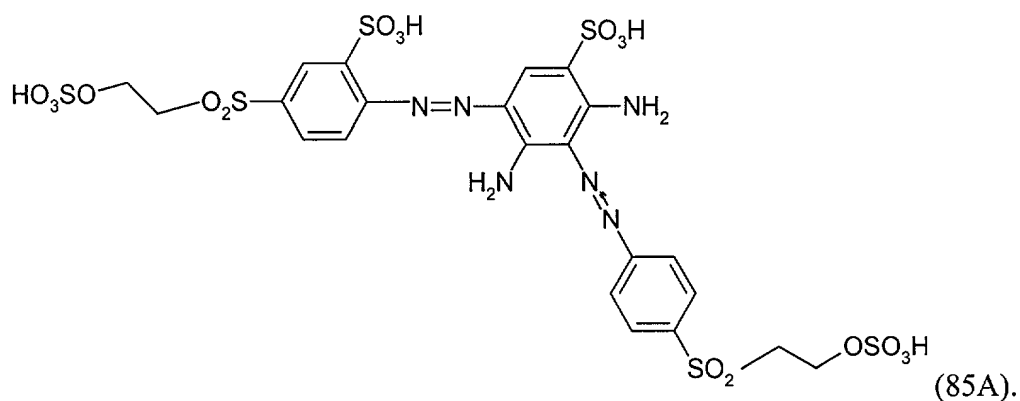
group R^{56} or the group R^{59} is a reactive group selected from a vinyl sulphonyl group and a group $SO_2CH_2CH_2Q^2$.

168. The dye mixture according to claim 166, wherein at least one

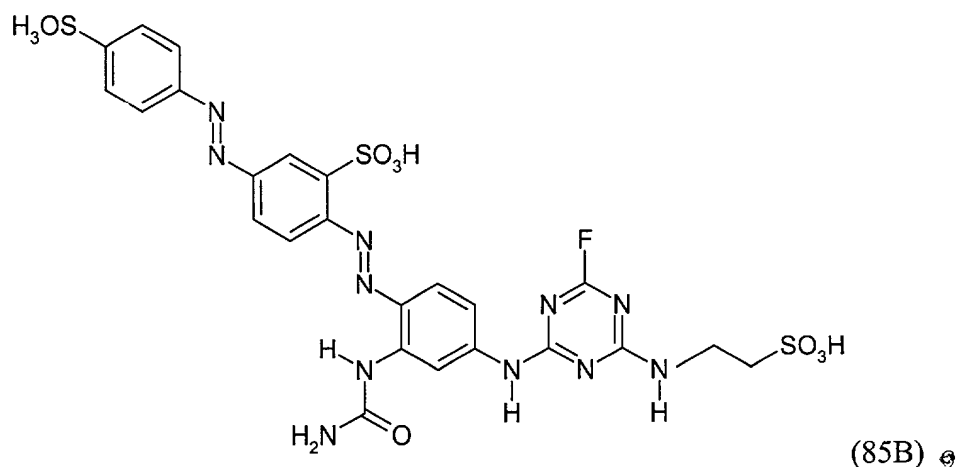
group R^{56} is a sulphonic acid group or a salt thereof and R^{59} is the group L^{10} -Het, where L^{10} is the group N(H)- and Het is a reactive triazine group substituted by a halogen atom and additionally, by the group $NHCH_2CH_2SO_3H$.

169. The dye mixture according to claim 167, which contains a

disazo dye of the formula (85A)



170. The dye mixture according to claim 167, which contains a disazo dye of the formula (85B)



171. The dye mixture according to claim 89, wherein the reactive dye (B) is a phthalocyanine dye of the formula (X).

172. The dye mixture according to claim 173, wherein, in the reactive dye (B) of the formula (X), respective average values of x_1 , x_2 and x_3 are x_1 is 3, x_2 is zero and x_3 is 1, three of the four isoindole rings of the phthalocyanine have a respective sulphonic acid substituent or a salt thereof thereon and the other isoindole ring has a group $\text{SO}_2\text{NH-B-NH-Het}$ substituted thereon.

173. The dye mixture according to claim 172, wherein B is a straight or branched C₂₋₄ alkylene group and Het is a triazine ring substituted by at least one halogen atom and optionally additionally substituted by a methoxy group.

174. The dye mixture according to claim 89, wherein the reactive dye (B) is a triphendioxazine dye of the formula (XI), or a salt thereof.

175. The dye mixture according to claim 174, wherein, in the reactive dye (B) of the formula (XI), each of T¹ and T² is a halogen atom, each U¹ is a sulphonic acid group or a salt thereof, each of B¹ and B² independently is a straight or branched C₂₋₄ alkylene group, each of Het¹ and Het² independently is a triazine ring substituted by a halogen atom and each of R⁸⁰ and R⁸¹ independently is a phenyl group substituted by at least one sulphonic acid group or a salt thereof.

176. The dye mixture according to claim 89, comprising, by weight of the total weight of the dyes, from 10 to 99.5% by weight, inclusive of component (A), and from 0.5 to 90% by weight, inclusive of component (B).- -

REMARKS

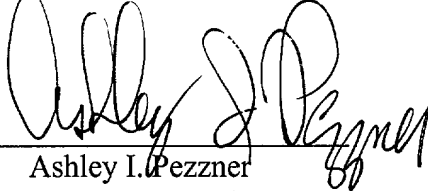
The applicants respectfully request that the preliminary amendment be entered prior to fee calculation and examination. The applicants have rewritten the claims 1-88 in the proper U.S. form as newly added claims 89-176. The application contains 1 independent claim (claim 89) and contains a total of 88 claims. The fee of \$1,224.00 is enclosed for the 68 additional claims over 20. No additional fee is due. If there are any additional fees due in connection with the filing of this response, including any fees required for an additional extension of time under

37 CFR 1.136, such an extension is requested and the Commissioner is authorized to charge or credit any overpayment to Deposit Account No. 03-2775.

A prompt and favorable action is solicited.

Respectfully submitted,

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